Project Managers' Advisory Group

MINUTES
September 15, 2008

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Attending: **(* = by phone)**

Bob Giannuzzi	EPMO
Kathy Bromead	EPMO
Linda Lowe*	EPMO
Barbara Swartz	EPMO
Jesus Lopez	EPMO
Jim Tulenko	EPMO
Valerie Maat	EPMO
Cathy Warren	ITS
James Myers	ITS
Kelly West*	ITS
Sarah Joyner	ESC
Vicky Kumar	OSC
George Fenton*	DOJ
Lynne Beck	DHHS DMH/DD/SAS
Lisa Haire	DHHS DMH/DD/SAS
Caroline Jackson*	DHHS DPH
Tory Russo*	DHHS DIRM
Gary Lapio*	DHHS DIRM
Bruce Humphrey*	NCCCS
Emily McGill*	DOL
Frank Seiber*	DOL
Lucy Cornelius*	DPI
Carla Thorpe*	DOT
Cheryl Ritter*	DOT

Bob Giannuzzi welcomed everyone to the meeting. **Cathy Warren** was introduced as a first time attendee.

Cathy Warren, ITS Director of Communications, presented an overview of the effort to overhaul the ITS web pages. The three phase approach started with the current effort to refresh the content. The next step is the redesign of the ITS and SCIO internet sites with a goal to have new design templates for use in January. She will solicit volunteer agency participation through the CIOs and also welcomed help from PMAG. The third phase will consist of ongoing enhancements. **Barbara Swartz** presented a walk through of some of the changes in progress on the EPMO pages. Anyone interested in the ITS web effort should contact **Cathy** at cathy.warren@its.nc.gov.

Bob solicited and received approval of the August minutes.

Jesus Lopez reported that the eighth cycle of the EPMO's PMP Exam Prep class begins later this month. All applicants who chose to enroll in this session were accepted. The rest opted for the spring session. **Jesus** also stated that a few past students will soon be taking the exam. **Bruce Humphrey** stated he has another candidate from NCCCS and was to follow up with Jesus after the meeting about potential enrollment.

Bob reported that the NCPMI Annual Event had about 600 attendees. The group was advised of the following upcoming meetings of interest.

NCPMI Venue	Speaker	Date/Topic
General Membership	Julie Batchelor	October 15 (6:00 PM) Optimizing the Value of Project Management in Achieving Business Success
Public Sector LIG	Sherri Fonvielle	October 2 (5:30 PM) Touchdown! The Story of Success - How to Successfully Organize a Project to Deploy 8000+ pc's in 3 ½ Months
PMO Committee	Sam Bayer	October 22 (5:30 PM) Facilitation Patterns"...how to recognize and deal with your most common facilitation challenges

Barbara Swartz summarized Methodology Group activities:

- The new Closeout document will be available as part of the end of September release of process changes and will be posted on the EPMO website.
- The checklist for monthly status reporting is slated to be available in the fall.
- **Alisa Cutler** is working on the revision of the Procurement Plan document. ITS Procurement is participating in this effort.

Bob passed out the following information on upcoming teleconferences of interest to the PM Advisory Group. He again pointed out the opportunity for a PMAG member to present at a NASCIO teleconference.

Organization/website	Contacts	Upcoming Calls
NASCIO http://www.nascio.org/committees/projectmanagement/	Stephanie Jamison 859/514-9148 sjamison@AMRms.com Access 888/272-7337 conference ID 6916986	TBD
PMO Executive Council http://www.pmo.executiveboard.com/	Register at website	September 17 (12:00 PM) **Measuring and Mitigating Project Risk through Portfolio Management Practices** October 8 (11:00 AM) **EPMO Challenges and Successes: A Practitioner Panel**
CIO Executive Council http://www.cio.executiveboard.com/	Register at website	September 18 (11:00 AM) **Accelerated Development: Leveraging Agile Methods**

		September 25 (10:00 AM) **Building the IT Budget: Practices and Benchmarks for 2009**
Application Executive Council http://www.aec.executiveboard.com/	Contact Bob Giannuzzi to register	September 25 (11:00 AM) **The High-Performance Applications Function: A Quantitative Analysis**
Infrastructure Executive Council http://www.iec.executiveboard.com/	Contact Bob Giannuzzi to register	September 17 (10:00) **SDLC-embedded Assessment of Records Management Requirements**
Information Risk Executive Council http://www.irec.executiveboard.com/	Register at website	October 7 (11:00) **Review of 2008 Research Agenda Poll Results**
Enterprise Architecture Executive Council http://www.eaec.executiveboard.com/	Register at website	September 16 (11:00) **Reference Architecture Anatomy**

Barbara Swartz gave status on the RFP for bringing in onsite training later this fiscal year. A suggestion was made to include additional courses beyond the four originally requested. Barbara was to email to PMAG the original list, suggested additional courses and a request for ideas of what else should be included in the RFP.

Jim Tulenko reported that his team has completed the annual exercise of collecting cost data in APM for submission to OSC for IT expenditure reporting. The PPM upgrade to Microsoft PPS 2006 is now slated for release in late October.

Kathy Bromead next reviewed the highlights of the final version of the EPMO Improvement Plan that had been circulated to PMAG prior to the meeting. She solicited feedback by the next PMAG meeting.

Lessons Learned from recently closed projects are included below. **Bob** highlighted pervasive issues with vendor management, planning for the architectural requirements, and caveats on status report accounting. The EPMO will look at how to maintain a useful repository on its website.

Kathy Bromead will ask **Glenn Poplawski** to discuss at the next PMAG meeting the PMO and provisioning services in ITS Operations' recent reorganization.

Meeting adjourned at 5:00.

NEXT MEETING
Monday, October 19, 2008

ITS Conference Room 2 or (919)981-5520

Lessons Learned Documentation

Exhibit A

NCDPH - Women's and Children's Health Project (WCH)

1. **LESSONS LEARNED** - What were the **positive** lessons learned (project strengths) from this effort?

Iterative meetings with the users to refine requirements benefited the outcome.

2. **LESSONS LEARNED** - What **opportunities for improvements** (project weaknesses) were learned with this project?

Iterative prototype review sessions of the product based on the detail design should have been held frequently in the development cycle. This would have reduced some corrective action cycles.

Exhibit B

ITS - Microsoft Exchange Service Implementation

Initiation Phase:

Topic	Lessons Learned
1. Business Case / Project Charter	The more detailed the better. Major factor in determining if project is really meeting requirements
2. Benefits	Hard for agency's to determine all benefits such as time saved, etc.
3. Managing Sponsor Expectations	Have them assist in business case from the beginning
4. Managing Customer Expectations	Really important. Have them involved in the beginning and possibly the project team itself.

Planning & Design Phase:

Topic	Lessons Learned
1. Updated Budget	A little confusing as when to use actual costs versus expected costs.
2. Issue Management	Do not take these personally. Keeping it simple is usually best.
3. Staffing Plan	Using the EPMO spreadsheet works well for all cost tracking
4. ETS System Design Document	OK to start off high-level and progressively work into more detail

Execution & Build Phase:

Topic	Lessons Learned
1. Resource Management (internal & external resources)	Don't assume everyone is on the same page as you are. Find out for yourself at what point your resources are at.
2. Project Communication	The more the better but keep the language simple, no technical jargon
3. Change Management / Change Request	Less painful than I expected
4. Testing (test execution, verification & validation, test scripts, test cases)	The more the better.
5. Backup / DR Strategy	Do not assume that because you have something sitting on SAN that it is always being backed up. Verify yourself.

Implementation Phase:

Topic	Lessons Learned
1. Project Cost vs. Budget Cost	Never quite understood why the tool could not use this info to keep the Status screens up to date.
2. Training (user, admin, etc)	Offering training is always a good thing. Headed off many questions before implementation.

Exhibit C

DOJ - Service Tracking and Billing (STB)

Initiation Phase:

Topic	Lessons Learned
1. Business Case / Project Charter	The project charter and business case must state in clear detail what the business expects to gain from successful completion of the project. All subsequent plans and deliverables must be tied back to these business goals and objectives. The STB project did this well, but the STARS (Service Tracking Accounts Receivable System) Project, which was the predecessor of this project, had to be cancelled early in planning and design because of how poorly this was handled.
2. Procurement Plan (procurement strategy….build vs. buy)	The decision to have a vendor implement a Microsoft Dynamics CRM package that DOJ got through its Microsoft enterprise agreement and actually provides the best coverage of business needs instead of an accounts receivable package with customizations to handle non-accounting functions (as was proposed in the STARS Project) was a cornerstone of the success of this project. Financial functions represented a very small percentage of the business need. The real need was for account management, workflow, and integration with other systems, which this project delivered.
3. Managing Sponsor Expectations	Involving sponsor from beginning ensured that we would define a project that would deliver what the business needed.

Planning & Design Phase:

Topic	Lessons Learned
1. Managing Sponsor Expectations	Weekly communication with sponsor ensured he was well-informed.
2. Managing Customer Expectations	Weekly meetings with customers and involving them in planning and design ensured their satisfaction.
3. Risk Management	Risk management activities were incorporated into project planning and corrective actions throughout the project. This contributed to a successful implementation in a situation where the user's work processes were being altered radically.
4. Issue Management	EPMO QA staff sometimes submits issues for resolution that are not really issues or are pertaining to a variance that is inconsequential in the grand scheme of the project. Responding to such trivial issues is a waste of the project manager's time.
5. Monthly Status Reporting	Maintaining budget spreadsheets that align to the information requirements of the PPM tool makes monthly reporting much more manageable.
6. ETS System Design Document	In future procurements, DOJ will be certain to make completion of this document a required vendor deliverable.
7. Requirements Mapping	High-level business needs were used to drive process and system analysis and define a new process and supporting system functionality to meet those business needs. People and process must were considered before system functionality, which contributed to project success. Requirements were traceable to business goals and objectives, and all business goals and objectives in the charter were addressed by planned functionality as described in the system requirements. Requirements documentation was of sufficient detail to support design, coding, and testing.

Execution & Build Phase:

Topic	Lessons Learned
1. Managing Sponsor Expectations	Weekly communication with sponsor ensured he was well-informed.
2. Managing Customer Expectations	Weekly meetings with customers and involving them in screen review and acceptance testing ensured their satisfaction.

3. Risk Management	Risk management activities were incorporated into project planning and corrective actions throughout the project. This contributed to a successful implementation in a situation where the user's work processes were being altered radically.
4. Issue Management	EPMO QA staff often submits issues for resolution that are not really issues or are pertaining to a variance that is inconsequential in the grand scheme of the project. Responding to such trivial issues is a waste of the project manager's time.
5. Monthly Status Reporting	Maintaining budget spreadsheets that align to the information requirements of the PPM tool makes monthly reporting much more manageable.
6. Project Schedule / Milestones / Project Planning	Having an integrated project schedule that reflected all work and dependencies regardless of who was responsible ensured that no deliverable components were missing at key milestones.
7. Vendor Management / Vendor Performance / Vendor Deliverables	Having good detail on deliverables and requirements in contract allowed us to hold vendor accountable to deliver the necessary functionality anytime there was disagreement regarding scope or deliverables.
8. Project Communication	A good balance was struck with vendor for time on-site versus off-site. Use of a project website facilitated communication. Use of web meeting functionality saved on travel time.
9. Pilot	The pilot for the project was of minimal use. So many actions were taken to ensure quality throughout the project that the pilot really turned up no significant issues. The users and the project team were already confident enough to go full production.
10. Development / Build	Even if a project is outsourced, a technical representative from DOJ must always be part of the project for purposes of code review, ensuring adherence to standards, and knowledge transfer. The project had trouble getting such a resource assigned, which complicated transition of the application to DOJ IT for operations, maintenance, and support.
11. Testing (test execution, verification & validation, test scripts, test cases)	Having a test plan and test cases that provided complete coverage of functional and technical requirements and executing on these plans ensured a high quality application. There were very few latent defects, none of which were critical, post-go-live. This greatly aided in user acceptance of a system that radically altered their work processes.
12. Requirements Verification & Validation	Requirements V&V was completed in conjunction with key business stakeholders and users, which helped ensure high quality and acceptance.

Implementation Phase:

Topic	Lessons Learned
1. Managing Sponsor Expectations	Weekly communication with sponsor ensured he was well-informed.
2. Managing Customer Expectations	Weekly meetings with customers and involving them in planning training and implementation ensured their satisfaction.
3. Risk Management	Risk management activities were incorporated into project planning and corrective actions throughout the project. This contributed to a successful implementation in a situation where the user's work processes were being altered radically.
4. Issue Management	None.
5. Monthly Status Reporting	Maintaining budget spreadsheets that align to the information requirements of the PPM tool makes monthly reporting much more manageable.
6. Project Schedule / Milestones / Project Planning	Having an integrated project schedule that reflected all work and dependencies regardless of who was responsible ensured that no deliverable components were missing at key milestones.
7. Production Readiness (software / hardware, process, personnel)	Tasks associated with production readiness were identified during planning and design and built into the project schedule. As a result, there were no bad surprises at go-live.
8. Training (user, admin, etc)	Classroom training and user documentation was of limited value given the magnitude of the changes to the users' work processes. The training was fine as an introduction to a system, but most users prefer on-the-job training with a new system like this. We knew this would be the case and planned to provide on-site support for the first few weeks. This definitely helped with user acceptance of the system.

Exhibit D

ITS - On-Boarding to Electronic Document Management Services

Initiation Phase:

Topic	Lessons Learned
1. Project Approval Process	Make sure that you build approval time into your project schedule. Depending on the number of approvals needed, not allowing the appropriate amount of time for approvals can impact resources and the project completion.

Planning & Design Phase:

Topic	Lessons Learned
1. Managing Sponsor Expectations	Make sure that Senior Management is committed to the project and willing to provide the resources to get the project completed by showing them the benefits of the service and doing the up front work to minimize the overall effort. For this project, Senior Management was presented with draft guidelines for use and a recommended implementation schedule so that they could see the amount of effort it would take to use the service.
2. Staffing Plan	Verify that your formulas are working correctly in the staffing plan. Errors can lead to inconsistencies between the staffing plan and the PPM tool.

Execution & Build Phase:

Topic	Lessons Learned
1. Risk Management	This project was first to consume a new service. Make sure that the service is ready to use before committing to a project schedule. Also make sure that the service offers the functionality that is advertised. In this particular case, some functionality that was used as a selling point to encourage use of the service had never even been purchased.
2. Resource Management (internal & external resources)	Publish your meeting schedule in advance with any assignments and make sure that all stakeholders are represented. This project required a concentrated amount of effort in a short period of time. The published schedule allowed staff to build the time into their personal schedules.
3. Vendor Management / Vendor Performance / Vendor Deliverables	Make sure that vendor tools function as advertised before purchasing. Make sure that the vendor is committed to fixing any problems found with their products in a timely manner. For this project, we ended up testing and debugging the purchased tool because the vendor would not apply the resources needed to fix the problems in a timely manner causing us to delay the project.
4. Project Communication	Communicate clearly and often with your team and stakeholders making sure that they know what is happening next and when. Encourage their feedback during each phase of the project – not just at the end. Document any meeting action items and follow up with responses as soon as possible – especially if the responses will have an impact on the project constraints.
5. Pilot	Allow time for trial and error – especially if this is the first time newly purchased tools will be used.
6. Other	Make sure that stakeholders understand the difference between the service and a project to consume the service. If unclear, it can lead to confrontation, undefined assignments and possible scope creep.

Implementation Phase:

Topic	Lessons Learned
1. Managing Customer Expectations	When projects get extended stay focused on the goal and continue to communicate with all stakeholders why this project is important and needs to be completed.
2. Change Management / Change Request	Be flexible. Also be ready to make changes when needed but make sure that the changes are clearly documented and understood by all participants.
3. Training (user, admin, etc)	Training instructions should be monitored and revised as needed to make the training experience positive.

General Comments:

Topic	Lessons Learned
1.	Never underestimate the power of peer pressure.
2.	In extended projects, where people are actually switching to a different functionality, follow up with them to share lessons learned from using the new functionality. Always encourage questions so that subsequent lessons learned can be added if needed.

Exhibit E

DOT - DMV Revenue / SAP Accounting System Integration

Initiation Phase:

Topic	Lessons Learned
1. Business Case / Project Charter	This work was for building interfaces between internal DOT systems.
2. Level 1 Budget	DOT uses standard labor costing instead of actual labor
3. Benefits	Clearly defined requirements helps to determine the benefits
4. Procurement Plan (procurement strategy….build vs. buy)	The only hardware needed for this project was to obtain 2 new PCs and 2 new scanners. These were obtained through State Contract as normal.
5. Project Approval Process	Time consuming effort to get all of the signatures
6. Managing Customer Expectations	Provide information to the client about the required EPMO processes and procedures that will have to be adhered to for the project.

Planning & Design Phase:

Topic	Lessons Learned
1. Project Approval Process	Can cause delays
2. Managing Customer Expectations	Involve client in the planning process to help establish clear expectations regarding timeline
3. Monthly Status Reporting	Easy to do using SAP
4. Staffing Plan	Combined planning effort between DMV IT and BSIP IT worked well
5. Project Schedule / Milestones / Project Planning	Benefited from using Microsoft Project for high level planning and analyzing “what if” scenarios. Once high level plan was completed, it was entered into SAP PS module for tracking purposes.
6. ETS System Design Document	Should be completed by IT System Infrastructure team instead of Project Manager.
7. Requirements Mapping	Clients are not always knowledgeable about all of details of their system.

Execution & Build Phase:

Topic	Lessons Learned
1. Project Approval Process	Can cause delays
2. Managing Customer Expectations	Watch out for scope creep
3. Risk Management	Legislature is a wild card and you do not have any control over how they can affect resources and workload
4. Project Schedule / Milestones / Project Planning	Beneficial to have an SAP PS expert available to assist with issues, answer questions and provide guidance if one is a novice.
5. Resource Management (internal & external resources)	Had to balance resources due to DMV Legislative workload and SAP Upgrade workload
6. Project Communication	Email is critical for communications. The project website on the portal was a great way to post project information and documents for DOT to see and it cut down on email traffic.
7. Change Management / Change Request	Denied requests for change due to scope creep
8. Development / Build	Critical to include accurate testing efforts in the planning process
9. Testing (test execution, verification & validation, test scripts, test cases)	It is critical to plan for and include accurate estimates for client testing in the project plan. It was difficult to stay on schedule when the client did not devote adequate time when it was scheduled for the testing effort.
10. Requirements Verification & Validation	You have little control over how long it takes the client to verify and validate test results. It can cause delays.
11. Hosting Provider (setting up environments)	Plan time in the schedule for delays when dealing with a Hosting provider. There is no formal documented process on how to best obtain assistance from ITS.

Implementation Phase:

Topic	Lessons Learned
1. Project Approval Process	Discovered that approval was not needed for registered projects for Implementation.
2. Managing Customer Expectations	Easily met when requirements are clearly defined.
3. Project Schedule / Milestones / Project Planning	Important to understand that when Confirming an Activity/Element in PS to enter the correct dates or it will skew your timeline.
4. Project Cost vs. Budget Cost	There is no acknowledgement by PMO/EPMO the when a project comes in under budget and on schedule. Instead the focus seems to be on who is over budget and behind schedule.
5. Production Readiness (software / hardware, process, personnel)	Coordinated effort between 2 IT areas, DMV and BSIP, was essential
6. Training (user, admin, etc)	Analysts had to train client because there was no formal training established for new functionality.

Exhibit F

DOJ - SBI Crime Laboratory Information Management System Replacement

Initiation Phase:

Topic	Lessons Learned
1. Procurement Plan (procurement strategy….build vs. buy)	Research showed that products to meet the needs of the lab were commercially available and could be implemented in less time at less cost than with DOJ IT's limited internal resources. The first inclination should always be to buy a solution instead of build it.
2. Managing Customer Expectations	The sponsor and stakeholders from SBI lab were involved in the project from the beginning and were actually driving the project from beginning to end. DOJ IT just provided project support as needed.

Planning & Design Phase:

Topic	Lessons Learned
1. Updated Procurement Plan	There were numerous conflicts with the vendor over the contract that arose from insufficiently precise language in the RFP. While these were ultimately resolved without additional cost, they did result in schedule delays. The requirements in an RFP need to be sufficiently precise to ensure that the customer is going to get exactly what they want at the end of the project. If it is not written, do not expect it to be delivered.
2. Managing Customer Expectations	The sponsor and stakeholders from SBI lab were involved in the project from the beginning and were actually driving the project from beginning to end. DOJ IT just provided project support as needed. The customer owned the project form beginning to end, which contributed to the project being successfully completed.
3. Risk Management	Selecting the correct vendor is not as simple as who has the most mature software. Such intangibles as approach, direction, growth path, hardware and software platforms, and operating systems all play an important role in assessing the selection risk.
4. Staffing Plan	Even if a project is completely outsourced, it is essential that DOJ IT assign a technical lead, a lead business analyst, and a lead tester on at least a part time basis to review and advise on requirements, RFP's, proposals, design, technical implementation plans, test plans, and test results at a minimum. That did not happen on this project, and the project suffered as a result.
5. Project Schedule / Milestones / Project Planning	Schedule was not realistic in terms of how long it takes to get through procurement. Need to factor in time for review and revision at all levels at each step, evaluations and demonstrations, negotiation, and protest.
6. Requirements Mapping	Having representatives from every lab section provide their requirements helped ensure the system would meet the needs of all stakeholders.

Execution & Build Phase:

Topic	Lessons Learned
1. Managing Sponsor Expectations	If schedule is important to sponsor, then schedule awards and penalties need to be included in the contract.
2. Managing Customer Expectations	Customer was involved in prototyping and testing system. This helped to ensure buy-in and prepare users for the changes to come.
3. Issue Management	Using a project web site to report and track issues helped ensure no issues were overlooked.
4. Project Schedule / Milestones / Project Planning	Vendor's implementation schedule was not realistic. We could not get the vendor to decompose, sequence, estimate, and assign their work items down to a level that would result in a believable schedule. Expectations for this type of planning need to be stated explicitly in the RFP.

5. Resource Management (internal & external resources)	The vendor's project manager had no authority to manage the vendor's resources who were primarily offsite. This made coordinating work between groups very difficult. The RFP needs to clearly state expectations for the authority of the vendor's project manager.
6. Vendor Management / Vendor Performance / Vendor Deliverables	Some of the system capabilities that the vendor claimed to have were not yet available when the project started. While the required functionality was ultimately delivered, this led to schedule delays. If schedule is important, then schedule awards and penalties need to be included in the contract.
7. Project Communication	Having vendor offsite most of the time prevented effective communication. Escalation was the rule instead of the exception in this project. Expectations for communications and time on-site need to be more explicit in RFP.
8. SLA Development (service level agreement)	For outsourced projects (where maintenance is also outsourced), it is essential to clearly define post-implementation roles and responsibilities between customer, vendor, and IT. This was not sufficiently formal in this project, which led to some confusion and miscommunication. This really should have been handled during the procurement process like it was for SAFIS.
9. Pilot	Doing a pilot for this project that included all lab sections and sites was essential to its success because of dramatically the project changed existing work processes. The pilot helped users and management prepare for what turned out to be a smooth transition into full production.
10. Testing (test execution, verification & validation, test scripts, test cases)	Testing was entirely performed by users of the system with no direct IT involvement. This helped the users get what they wanted, but probably dragged out the process due to difficulty in lab users communicating with the vendor's technical staff. A better balance between IT and user involvement in testing is recommended.
11. Requirements Verification & Validation	The vendor and customer did not always interpret requirements in the same way. This process was too informal for this project. Recommend a more formal approach with IT involvement to ensure that requirements are represented in a way that will understandable to all parties involved in implementing and verifying and validating requirements.
12. Backup / DR Strategy	This was planned for going back to the RFP and works well.

Implementation Phase:

Topic	Lessons Learned
1. Managing Customer Expectations	Having total involvement in the project by ALL the key user personnel meant that each party's expectations were recognized and communicated throughout the user community and thus managed.
2. Risk Management	Doing the pilot was definitely a great way of mitigating the risk of implementing a new system that dramatically changes users work processes.
3. Issue Management	Using a project web site to report and track issues helped ensure no issues were overlooked.
4. Resource Management (internal & external resources)	The vendor's project manager had no authority to manage the vendor's resources who were primarily offsite. This made coordinating work between groups very difficult. The RFP needs to clearly state expectations for the authority of the vendor's project manager.
5. Vendor Management / Vendor Performance / Vendor Deliverables	The vendor's implementation duties need to be stated more explicitly in the RFP. This was an area of contention in this project.
6. Project Cost vs. Budget Cost	Fixed price contract was used to control cost.
7. Implementation of Backup / DR	Multi-site data replication and redundant hardware between DOJ data center, Raleigh lab, Western lab, and Triad lab ensures ample business continuity and disaster recovery capabilities.
8. Implementation of SLA	For outsourced projects (where maintenance is also outsourced), it is essential to clearly define post-implementation roles and responsibilities between customer, vendor, and IT. This was not sufficiently formal in this project, which led to some confusion and miscommunication in post-implementation support.
9. Production Readiness (software / hardware, process,	The pilot definitely helped with production readiness. Each lab section and site transitioned to the new system with no problems due to being involved from the

personnel)	beginning and throughout the project.
10. Training (user, admin, etc)	Segmented training approach in which there was general training and section-specific training worked well. This is another area where expectations of the vendor need to be more specific in the RFP.

Exhibit G

ESC - Unemployment Insurance – Remote Tax and Wage Filing

1. **LESSONS LEARNED** - What were the **positive** lessons learned (project strengths) from this effort?

Bi-weekly meetings were held by the project team that facilitated communications, including a clearer understanding of requirements and more effective issue resolution.

2. **LESSONS LEARNED** - What **opportunities for improvements** (project weaknesses) were learned with this project?

- All user requirements need to be clearly defined by the Business Analyst to ensure application(s) are developed to meet the needs of the users
- All user requirements must be documented and signed off on during appropriate timeframe
- Any changes to requirements, post-signoff, must be handled via ESC's Change Control Process
- User acceptance testing needs to be as thorough as possible and viewed as a key project milestone with signoff

Exhibit H

DOJ - Statewide Automated Fingerprint Identification System (SAFIS) Replacement

Initiation Phase:

Topic	Lessons Learned
1. Procurement Plan (procurement strategy….build vs. buy)	Doing competitive bid instead of sole source resulted in significantly lower costs.
2. Managing Customer Expectations	Use of a steering committee provided external stakeholders insight into how they would be impacted by project and expected to participate.

Planning & Design Phase:

Topic	Lessons Learned
1. Updated Procurement Plan	All parts of proposals were evaluated by all team members. Next time, we would separate this into areas of specialization. Involving external agencies in review of RFP and proposals helped ensure buy-in. Doing internal legal reviews of procurement deliverables before sending to Statewide IT Procurement smoothed process. Bundling live-scan master purchase agreement with SAFIS core system replacement was probably not a good idea. It lengthened the procurement process for the core system. Live-scan bids came two years before that project was even funded. Cost of technology always drops, so it would have been better to wait and bid out live-scan replacement separately. It also confused the project definition from an EPMO point of view. On the plus side, it allowed external agencies to buy new live-scans on their own at good prices in the meantime.

	Need to describe different user connections to system in RFP and have vendor tell us what response time for each connection type will be. Need more technical review of proposals with respect to network impact. DOJ IT needs to assign a technical lead to projects for RFP creation and evaluation even if the project and subsequent operations, maintenance, and support are being completely outsourced. RFP needs to more explicitly describe expectations for requirements and design documentation, including completion of ITS documents. Ideally would like to do benchmark testing of SAFIS solutions prior to selection. Legislatively mandated deadlines took this option off the table. Need DOJ IT to specify any constraints relative to DR and use of DR site in the RFP.
2. Managing Customer Expectations	Use of a steering committee provided external stakeholders insight into how they would be impacted by project and expected to participate.
3. Risk Management	Risk analysis fed into the contract. Specifically data conversion and financial risks were addressed by requesting a proof of concept before proceeding with the full implementation.
4. Issue Management	Issue list was maintained and reviewed on a weekly basis at a minimum to keep issues from languishing. EPMO QA staff sometimes submits issues for resolution that are not really issues or are pertaining to a variance that is inconsequential in the grand scheme of the project. Responding to such trivial issues is a waste of the project manager's time.
5. Monthly Status Reporting	Maintaining budget spreadsheets that align to the information requirements of the PPM tool makes monthly reporting much more manageable.
6. Staffing Plan	Use of an ex-SBI agent as a contractor with expert knowledge in SAFIS was essential to project success. Highly recommend doing whatever is necessary to have same level of subject matter expertise available during next replacement.
7. Project Schedule / Milestones / Project Planning	Vendor schedule for implementation was not realistic, which resulted in setting unrealistic schedule expectations with other stakeholders. Need to be more skeptical of vendor schedules in the future and make sure they decompose, estimate, sequence, and assign work items down to a level sufficiently detailed to create a realistic project schedule. This requirement should be expressed in RFP.
8. ETS System Design Document	We made vendor do more detailed requirements and design than normal, and that paid off in high quality system. Need to reinforce on external agencies the importance of reviewing specifications for interfaces with their systems. These had to be changed late in the process due to inadequate review. DOJ IT needs to assign technical lead even if project is outsourced to deal with items like this. ETS was flexible in allowing us to refer to other design documents created by the vendor in the system design document, which prevented us from having to do redundant work just to satisfy them and was greatly appreciated. In the future, we need to make completion of this document a requirement for the vendor in the RFP.
9. Requirements Mapping	Having at least a partial set of historical requirements made requirements development quicker and more accurate. On the other hand, it tended to lead the team to not seek opportunities to improve upon the old requirements. Not having a totally complete set of historical requirements made getting requirements from external agencies more difficult. Requirements from this project have been kept current and will be maintained to make the next replacement easier. Bandwidth requirements should have been stated more clearly, i.e. dedicated T1 versus shared T1. Requirements should be based on available bandwidth, not total

	bandwidth. DOJ IT needs to assign lead business analyst even if project is outsourced. Need to consider full end-to-end process in defining requirements, including utilities in support of manual processes, such as barcode labels for card scanning or sending reject letters.

Execution & Build Phase:

Topic	Lessons Learned
1. Managing Sponsor Expectations	Sponsor received regular updates and was never caught off guard.
2. Managing Customer Expectations	External agencies would have liked more regular communication especially concerning schedule changes. We planned this, but time constraints prevented it.
3. Risk Management	Needed to more actively manage risk of bandwidth not being adequate to support system from each stakeholder's point of view.
4. Issue Management	Issue list was maintained and reviewed on a weekly basis at a minimum to keep issues from languishing.
5. Monthly Status Reporting	Maintaining budget spreadsheets that align to the information requirements of the PPM tool makes monthly reporting much more manageable.
6. Project Schedule / Milestones / Project Planning	Vendor schedule for implementation was not realistic, which resulted in setting unrealistic schedule expectations with other stakeholders. Need to be more skeptical of vendor schedules in the future and make sure they decompose, estimate, sequence, and assign work items down to a level sufficiently detailed to create a realistic project schedule. This requirement should be expressed in RFP.
7. Resource Management (internal & external resources)	Project required dedicated PM instead of partial. That is why communication with external stakeholders was not as good as we would have liked. Project needed a test lead from DOJ IT. Part-time project manager ended up having to fill this role too.
8. Vendor Management / Vendor Performance / Vendor Deliverables	Thorough contract allowed DOJ to hold vendor accountable. This is a case study in the value of detailed contract that covers all aspects necessary for successful delivery.
9. Project Communication	Excellent lines of communication kept key stakeholders well informed though communication with external stakeholders could have been more frequent.
10. Change Management / Change Request	Had very few of these probably due to the good upfront work on RFP, contract, and requirements and design. For the ones we had, there was cost offset to match the new request, which prevented the project budget from increasing.
11. SLA Development (service level agreement)	This was incorporated into the RFP and contract, so there were no surprises.
12. Pilot	Proof of concept during planning and design filled this role and was valuable in terms of risk management. A full pilot was impractical relative to cost and value of risk mitigation. No problems occurred in rollout that could have been identified in a pilot.
13. Testing (test execution, verification & validation, test scripts, test cases)	System interface testing was main weakness in factory acceptance testing (FAT). Could not test this well until site acceptance test (SAT) because the simulators used in FAT were primitive and did not cover enough scenarios. This extended SAT well beyond initial schedule. Expectations for testing interfaces should be stated explicitly in RFP. We tested more than any other Motorola client, which paid off in system quality. Test plans and test cases for data conversion, functionality, performance, and disaster recovery were exhaustive and detailed (with exception of bandwidth impact testing at end-user level, which needed to be addressed). Next time we need to have external agencies take more responsibility for testing their interfaces and make sure this happens earlier in the process. Very few latent defects were discovered post-go-live, which is a testament to the value of thorough testing prior to go-live.
14. Requirements Verification &	Combined requirements and design together so traceability was not an issue.

Validation	
15. Backup / DR Strategy	Need ITD to specify any constraints relative to DR and use of DR site. Need to have right people in ITD engaged in review of design for DR and planning its implementation. Not having this caused rework and confusion in the design and implementation of DR approach.

Implementation Phase:

Topic	Lessons Learned
1. Managing Customer Expectations	Should have reinforced to users that first couple of days were likely to be bumpy with some downtime for tuning and updates.
2. Risk Management	Analysis of cutover risks and incorporation of risk responses into project plans and activities minimized downtime for users statewide during cutover.
3. Issue Management	Issue list was maintained and reviewed on a twice a week basis at a minimum to keep issues from languishing. Did daily calls during cutover period to ensure rapid resolution and escalation of issues.
4. Monthly Status Reporting	Maintaining budget spreadsheets that align to the information requirements of the PPM tool makes monthly reporting much more manageable.
5. Project Schedule / Milestones / Project Planning	Go-live was well-planned and generally smooth with the exception of some external system interface problems. Need to schedule more time for testing interfaces to systems in external agencies and secure commitment from those agencies to participate in testing.
6. Resource Management (internal & external resources)	Need full vendor team onsite for cutover. Having only part of team caused delays. Having lead engineer onsite the whole time is essential.
7. Vendor Management / Vendor Performance / Vendor Deliverables	Need full vendor team onsite for cutover. Having only part of team caused delays. Having lead engineer onsite the whole time is essential.
8. Project Deliverables (refer to the list of deliverables in the PPM Tool that the PM said would be delivered)	All deliverables were provided exactly as specified in the contract with the result being a highly successful system. This yet again reinforces the importance of a thorough contract for products and services that will meet the business need.
9. Implementation of Backup / DR	Was planned for, tested, and worked well. Always a good idea to build this into schedule. It is hard to test to if you wait too long.
10. Implementation of SLA	Having a detailed SLA with vendor has ensured consistent service that meets expectations.
11. Production Readiness (software / hardware, process, personnel)	This was planned in excruciating detail and contributed to successful cutover.
12. Training (user, admin, etc)	Product was easy to use and product training worked well in that narrow context, but the users needed more. Need to include workflow specific training, not just product training. Training needs to include how to deal with errors and other abnormal conditions in the system. Need to have some hands-on over-the-shoulder training post-implementation to help users incorporate what they learned in training into their typical daily work.
13. Other	DOJ needs to have its own people verify receipt and inventory of equipment shipped directly to external agencies. This was a logistical problem early in the implementation phase.

Exhibit I

DOT - Email Implementation Coordination

A. List this project's three biggest successes.	
Description	*Factors that Promoted this Success*
Communication, PR	Communication and documentations was the primary focus of one team member, which was one of the most successful pieces of the entire project – the users kept commenting about how they liked the communication and documentation provided to them for Outlook. Also, on go-live day they knew what to expect, no surprises
Total email messages migration	All email was migrated from the server over the migration weekend – the plan was detailed, practiced thoroughly several times, the plan was followed over migration weekend, and there were no surprises. Everything was migrated.
Training and Desktop Support	The training plan was in place, and carried out as planned. Also an on site plan for day 1 was in place and followed – all areas were covered to assist people with config, etc. For six days, there was an open conference call staffed by technical people during working hours for tech support. On go-live day, helpers and assistants were on site wearing Hawaiian shirts. Getting started guides were created in house and handed to people as they entered the buildings that outlined all help sources and also told them to look for a Hawaiian shirt if they needed assistance.

B. List other successes that the team would like highlighted:	
Description	*Factors that Promoted this Success*
Team Work	All efforts of this project brought together different teams to work through issues and complete the project There were a lot of managers and they had to learn to deal with each other and not always being the one in charge. Overall there was a lot learned about teamwork and how important it is to get along and respect everyone's opinion on a project of this magnitude. Testing was accomplished with members specializing in certain areas and working together to complete the final document.
Help Desk	Overall the Help Desk did a wonderful job. Many IT employees outside of the Help Desk assisted which showed teamwork and a dedication to the project as well as the success of IT.
ITS and DOT worked well together	ITS and DOT worked well together, held weekly status meetings, and worked as a team to get things accomplished. This has not always been the case in the past between the two agencies, so this is a major accomplishment for both agencies.
C. List areas of potential improvement along with *high-impact* improvement strategies:	
Description	*Factors that Promoted this Success*
Help Desk	We should have included the Help Desk Manager in our status meetings from the beginning. We had a difficult time getting statements of work approved and getting new personnel on site for the Help Desk. The delay prevented some of the new personnel from being able to complete the DOT training prior to go-live. The new contractors came in over the course of a month, and one of the new contractors actually had their first day on 'go-live day'. The existing Help Desk Team (7) had approximately a month to use Outlook prior to go-live, so they had limited time to become familiar with the tool. If we had the luxury of time, it would have been nice to provide them with some more training, or follow-up on specific items about Outlook once they had some time to use the tool. Overall the Help Desk did a wonderful job. Many IT employees outside of the Help Desk assisted which showed teamwork and a dedication to the project as well as the success of IT.
Tech Services SOWs	Due to the length if time it took to get the statements of work approved, the Technical Services statements of work were not completed in time to help at go-live. The new contractors were not here until the first week of June. This made it difficult on Tech Services, but they worked together, pulled in extra resources from within IT for Day 1, and still pulled off a successful 1st few weeks with the Outlook implementation.